## COMPUTER SYSTEM LINKED BY USING

## **INFORMATION IN DATA OBJECTS**

## Abstract of the Disclosure

Various improvements to steganographic systems, and applications therefore, are disclosed. The improvements include facilitating scale and rotation registration for steganographic decoding by use of rotationally symmetric steganographically embedded patterns and subliminal digital graticules; improved techniques for decoding without access to unencoded originals; improving robustness of steganographic coding in motion pictures and/or in the presence of lossy compression/decompression; and representing data by patterned bit cells whose energy in the spatial domain facilitates decoding registration. Applications include enhanced-security financial transactions, counterfeit resistant identification cards, fraud deterrent systems for cellular telephony, covert modem channels in video transmissions, photo duplication kiosks with automatic copyright detection, and hotlinked image objects (e.g. with embedded URLs) for use on the internet.

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